



# **Joint Transportable Collective Protection System (JTCOPS)**

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## JTCOPS ORD System Description & Use

- A modular collectively protected shelter system that incorporates a toxic free area and a contamination control area and includes environmental control, air filtration and generator/power capabilities.
- Transportable, free-standing system for billeting, medical and operational facilities capable of being complexed to meet changing mission needs.
- Provide relief from psychological and physiological stresses due to wearing full Individual Protection Equipment during sustained operations in a contaminated environment.



# JTCOPS ORD Technical Challenges

- **Filtration**

- Filter all chemical & biological threat agents (Key Perf. Parameter)
- Filter Toxic Industrial Materials (TIMs)
- 30 day operation without filter change
- Allow filter change in an NBC environment 30-60 day occupancy after exposure
- Residual life indication

- **Shelter/Tentage\_**

- Continuous operation for 1-2 years in an uncontaminated environment
- Connect to CP vehicles, vans & standard shelters
- Provide lavatory/latrine capabilities & water, sewer hookups

- **Environmental Control & Power Generation**

- Provide cooling, heating, export power, and be man-portable

- **Weight & Cube**

- Maximum 500 lbs.
- Air Transportable (463L Pallet)



## **Advanced Technology Needed to Meet JTCOPS Requirements**

- **Filtration**

- Regenerative Filtration - T/PSA
- Advanced Adsorbents - Novel Sorbents, Layered Beds
- Residual Life Indicator - SAW, Micro-sensors

- **Shelters/Tentage\_**

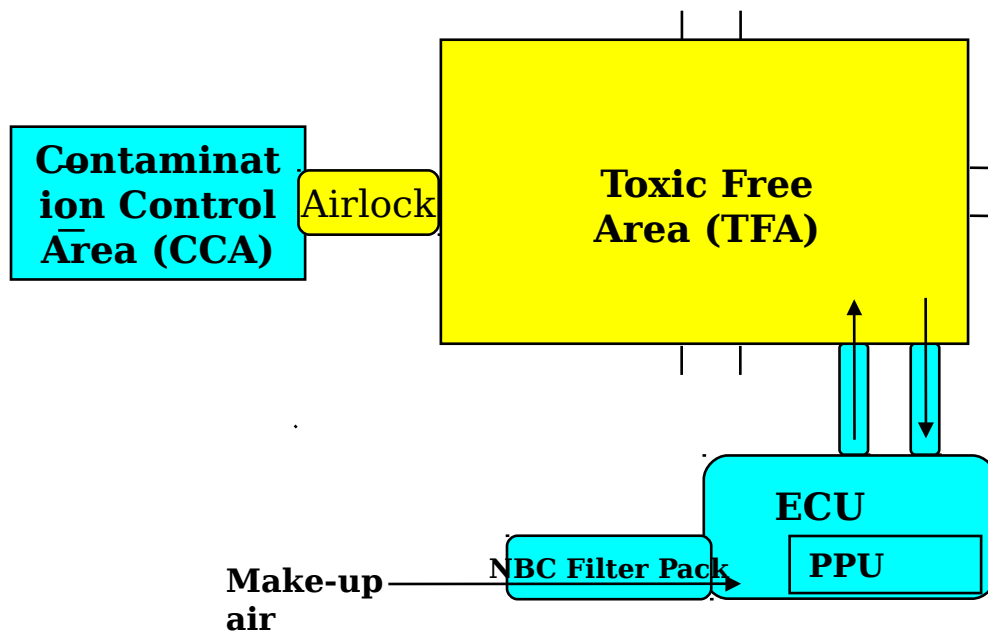
- Lightweight Tentage Materials
- Improved Seals/Closures

- **Environmental Control & Power Generation**

- Lightweight, low-power ECU
- Lightweight generator
- Advanced Blowers



## Notional JTCOPS Module



**500 lbs per  
module  
(packaged)**



## JTCOPS Program Strategy

- Conduct trade-off analysis of requirements/weight/cost/schedule
- Use available technologies/components for initial solution(s)
- Leverage off Tech Base efforts and Joint Collective Protection Equipment (JCPE) program
- Incorporate Tech Base transitions and emerging technologies

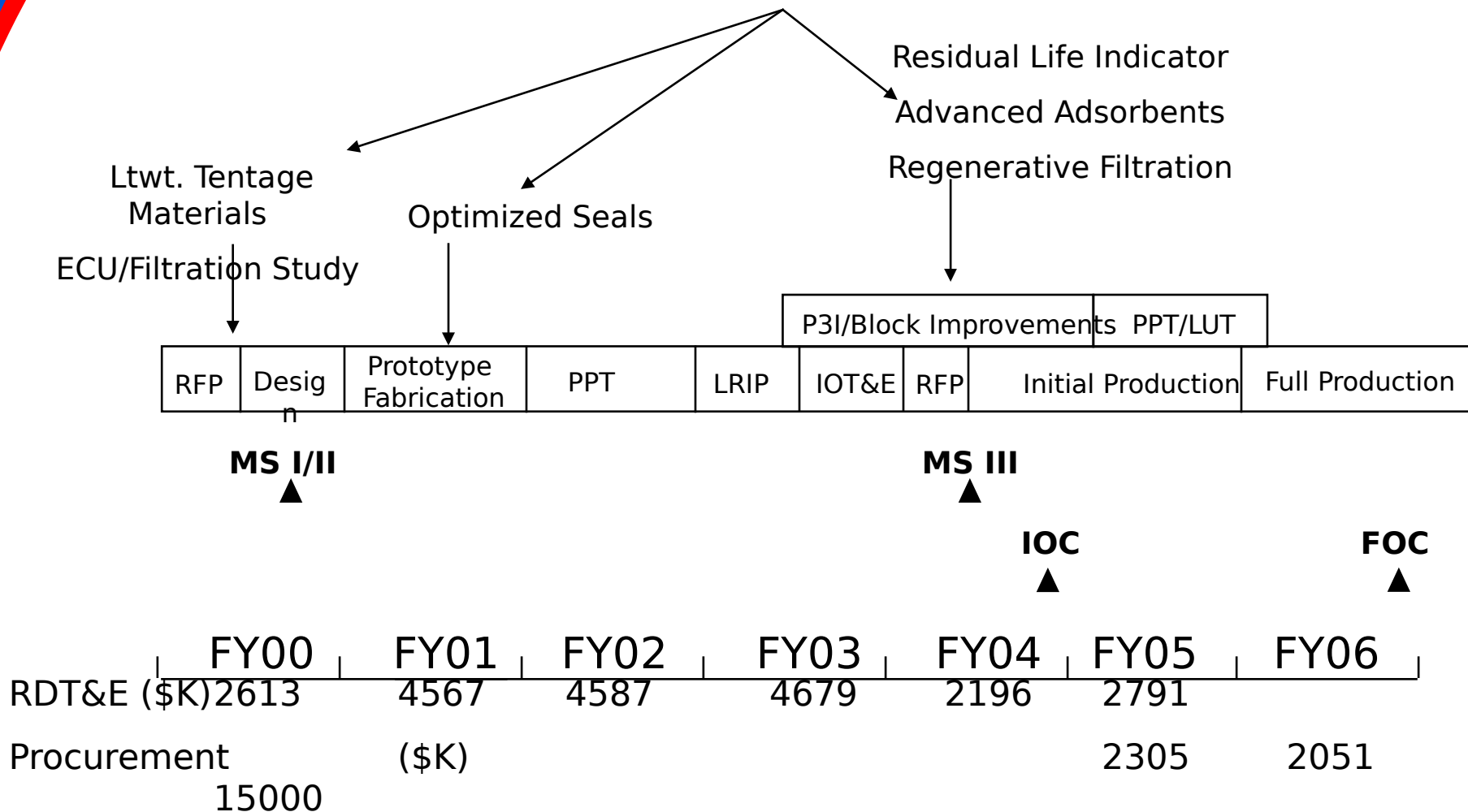
as Block Improvements

• Competitive award of development contract(s) possibly with LRIP



# JTCOPS Program Schedule & Funding

Tech Base Deliverables





## JTCOPS Program Status

- Final ORD review held 12 Jan 99; awaiting approvals
- Army is the lead Materiel Developer
  - PM: SBCCOM - Natick (Steve Beaudoin)
  - Deputy PM: SBCCOM - Edgewood (Gabe Ramos)
- Joint Integrated Product Team established
- CBD Announcement Released on 27 May 99
  - Early information exchange with industry regarding requirements and capabilities
  - Draft performance specification
  - Acquisition considerations
  - Industry Day